

some embodiments, potential voters can visit their state's official voting registration for voting; or call to request official documentation be mailed to the nearest state's USA Voter Registration center in the state that the voter currently resides in, or county's USA Embassy. The voters can then have their identity validated at the approved polling registration station for in-person validation and photo taken for submission prior to receiving special form. If the voter is not in the particular state the voter can call the state's USA Voter Registration Center in the state or country the voter is located in. In some embodiments, this process can be handle in whole or in part by identity services **130**.

**[0116]** In some embodiments, as the voter's identity is being verified, the verification information can be transmitted through voter registry **142** to system **100**. The EPM **132** can then generate a particular electronic barcode associated with that voter. In some embodiments, the EPM **132** can also generate special coding identifiers, such as bar codes, that represent identifying information about the voter, such as state, voter ID, issuer, voter residence, voter mailing address, age, sex, birth, education level, etc. In some embodiments, the special coding identifiers and electronic barcode are then printed on a special form used as part of the verification process. These forms can also be electronically signed and dated by the system and the state issuing the form.

**[0117]** Once the voter's identification has been verified, the voter can then go to the polls where, a polling worker can confirm the voter's identity. The poll worker can then issue a special electronic postmarked stamped voting card. The voting card can be taken to the polling machine, where it is inserted. The voting machine only allows people with a voting card to vote and will only allow a person with a particular electronic postmark to vote once. Once the vote has been cast, the voting machine can issue a receipt containing there voting information. The vote can then be stored on the blockchain. In some embodiments, the vote can also be stored in a local server, main tallying server and an archive server. Further, the voting cards themselves are stored by the machine as a physical record of who voted.

**[0118]** FIG. 14 displays an embodiment of a system **1400** for securely storing votes on a blockchain. In some embodiments, this system can be combined with any and all features of all systems described herein in order to create a secure voting system. In some embodiments, a voter can interact with an application **1401** on a tablet, mobile phone, personal computer, or other computing device. In some embodiments, the application **1401** can correspond to or be similar to the user interface **131** of FIG. 1. In some embodiments, the application can be known as a "Vote By Mail" application or "VBM" application. In some embodiments, a voter must first register to vote with the appropriate election authority in order to download the VBM application. This registration can include a voter signature, such as an image of a voter's electronically captured hand-written signature, for the election official to store and use to authenticate ballots and voters. The signature object can be a bitmap created within the VBM application. Once the voter has registered with the appropriate election authority, the voter can then receive authorization that allows them download and install the application. In some embodiments, this authorization can be a ballot access token. A voter can receive a ballot access token from the VBM application or from the system. In some embodiments, the ballot access token is included on a

physical document that is mailed to the specific voter. The ballot access token allows a voter to access his or her ballot that is stored in the database. Ballot access tokens are assigned individually to each voter. In some embodiments, the ballot access token can be a 12 character alphanumeric string and special characters. The ballot access token can be a QR code or other computer readable code which allows the voter to access the ballot on the VBM application when scanned. In some embodiments, the ballot access token can only be used one time in an election. In some embodiments, the user can scan this code with a computing device, and then download the application **1401**.

**[0119]** In some embodiments, once the application **1401** has been downloaded, the user can then receive a second bar code, QR code, or some other computer readable code that allows a user to vote in a specific election. The second code can be sent on a physical document to the user, such as a verification document sent in by the mail. In some embodiments, the user can scan the physical code on the mailed document with the application **1401**, which can operate the camera or scanner of a mobile computing device running the application **1401**. The scanned code will authorize access to the VBM application for a specific ballot and/or election based on the voter identity stored in or associated with the scanned code. The application **1401** will load into the application **1401** the ballot of the election that the user is registered or authorized to vote in. This can be determined based on the voter's address. For example, in a single election, a voter may vote for different offices or candidates based on where the voter lives. The ballot that is presented to the voter will correspond to the ballot the voter is authorized to vote on. In some embodiments, the code can also contain a BallotID, and ElectionID, and a VoterID. The VoterID is a unique identifier that designates the voter. The BallotID and ElectionID are identifiers for the election that reference a ballot and election within the system that user will vote in and the ballot that the user will vote with.

**[0120]** Once the ballot has been loaded into the application **1401**, the user can then fill out the ballot to vote in the election. In some embodiments, the user can also use the application to "sign" the ballot by using a stylus or finger to record a digitized version of the user's physical signature. Once the ballot has been filled out, the application **1401** transmits the votes or ballot selections to a blockchain abstraction layer or blockchain access layer (BAL) **1402**, or to other parts of the system. In some embodiment, the application **1401** transmits the ElectionID, BallotID, VoterID as well as the ballot selections the user made on the ballot to other parts of the system. In some embodiments, the application **1401** can also transmit the digitized version of the user's physical signature. All of this information is transmitted to blockchain access layer **1402**.

**[0121]** In some embodiments the blockchain abstraction layer **1402** can be a computer, server, database or computing device or group of computing devices that coordinate storing information on the blockchain. In some embodiments blockchain abstraction layer **1402** can correspond to or be similar to the blockchain access layer **101** in FIG. 1. In some embodiments, the blockchain abstraction layer **1402** can receive information from application **1402** and then coordinate storing that information and creating entries for that application on the blockchain.

**[0122]** In some embodiments, the blockchain abstraction layer **1402** can store information in voting databases **1404**.